

WHAT IS CLAIMED IS:

1. A chamber structure of an inductive coupling plasma etching apparatus,
comprising:
 - an etch chamber in which an etching process is performed;
 - 5 a plasma chamber in which plasma is generated; and
 - a segregation wall part having a portion made of ceramic material opposite
to the etch chamber, and having a portion made of quartz material opposite to the
plasma chamber, the segregation wall part separating the etch chamber from the
plasma chamber.
- 10 2. The chamber structure of claim 1, wherein the plasma chamber is in an
upper portion of the chamber structure, and the etch chamber is in a lower portion of
the chamber structure.
- 15 3. The chamber structure of claim 1, which is of cylindrical shape.
4. The chamber structure of claim 1, wherein the portion of the segregation wall
part opposite to the etch chamber includes a heater that heats the ceramic material.
- 20 5. The chamber structure of claim 1, wherein the segregation wall part includes
gas flow paths and gas exhaust holes that supply process gas into the etch chamber.
6. A chamber structure of an inductive coupling plasma etching apparatus, the
chamber structure having cylindrical shape and being divided by one segregation wall
25 part into a first chamber wherein an etching process is performed and a second

chamber in which plasma is generated,

the segregation wall part having a portion made of ceramic material that is a ceiling of the first chamber, and having a portion made of quartz material that is a bottom of the second chamber.

5

7. The chamber structure of claim 6, wherein the portion of the segregation wall part that is a ceiling of the first chamber includes a heater.

8. The chamber structure of claim 6, wherein the segregation wall part includes
10 gas flow paths and gas exhaust holes that supply process gas into the first chamber.

9. A chamber structure of an inductive coupling plasma etching apparatus of cylindrical shape divided into an upper chamber and a lower chamber by one segregation wall part,

15 the segregation wall part having a portion made of ceramic material that is a ceiling wall of the lower chamber, and having a portion made of quartz material that is a bottom wall of the upper chamber.

10. The chamber structure of claim 9, wherein plasma is generated in the upper
20 chamber.

11. The chamber structure of claim 9, wherein an etching process is performed in the lower chamber.

25 12. The chamber structure of claim 9, wherein the portion of the segregation wall

part that is a ceiling wall of the lower chamber includes a heater.

13. The chamber structure of claim 9, wherein the segregation wall part includes gas flow paths and gas exhaust holes that supply process gas into the lower chamber.

5

10

15

20

25